

IN THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 22 with the following:

B₁ In *Arabidopsis thaliana*, the Salt Overly Sensitive 7 2 (SOS2) gene is required for intracellular Na⁺ and K⁺ homeostasis. Mutations in SOS2 cause Na⁺ and K⁺ imbalance and render plants more sensitive toward ~~growleth~~ growth inhibition by high Na⁺ and low K⁺ environments. We isolated the SOS2 gene through positional cloning. SOS2 is predicted to encode a serine/threonine type protein kinase with an N-terminal catalytic domain similar to that of the yeast SNF1 kinase. Sequence analyses of *sos2* mutant alleles reveal that both the N-terminal catalytic domain and the C-terminal regulatory domain of SOS2 are functionally essential. The steady-state level of SOS2 transcript is up-regulated by salt stress in the root. Autophosphorylation assays show that SOS2 is an active protein kinase. In the recessive *sos2-5* allele, a conserved glycine residue in the kinase catalytic domain is changed to glutamate. This mutation abolishes SOS2 autophosphorylation, indicating that SOS2 protein kinase activity is required for salt tolerance.

[Please replace the paragraph beginning on page 6, line 19 with the following:]

B₂ Fig. 5: Regulation of SOS2 expression by salt stress. Plants were treated with 200 mM NaCl (A) or with nutrient ~~solution~~ solution as a control (B) for the indicated time periods. Total RNA were extracted from roots and shoots, and subjected to Northern blot analysis with ³²P-labeled SOS2 cDNA as probe. Thirty-five micrograms of total RNA was loaded in each lane. Ethidium bromide-stained rRNA bands were used as controls for equal loading.

Please replace the paragraph beginning on page 6, line 19 with the following:

NE **Genetic and Physical Mapping.** Genetic mapping with restriction fragment length polymorphism and PCR-based markers was as described (19). Construction of yeast artificial chromosome (YAC) and bacterial artificial chromosome (BAC) clone contigs (1) was partly

based on information available at <http://www.nucleus.esl.org/protarab/chrom5.map> and
<http://www.kazusa.or.jp/arabi/chr5/map/12-14Mb> publicly available databases. This
information is incorporated herein by reference.